2005 Report of Accomplishments Franklin Conservation District



Natural Resource Improvements in 2005 - Summary

- Implementation of agricultural best management practices prevented an estimated 369,270 pounds of nitrogen from entering the ground water system in Franklin County.
- Reducing irrigated agriculture's contribution to high nitrate levels in ground water was the major focus
 of the Franklin Conservation District's natural resource activities.
- More than 9,500 students and other individuals received training through the District's educational programs.

Mission of the Franklin Conservation District

 The Franklin Conservation District promotes the conservation and wise use of natural resources by providing technical and financial assistance to landowners.

Water Quality Implementation

- The FCD continued working with dairy operators to demonstrate the use of low volume-high frequency manure applications to reduce potential nitrate contamination of the groundwater.
- Soil sampling to a depth of 10 feet was conducted on 4 dryland field plots which have received up to four times the recommended nitrogen application rates. The goal is to assess whether nitrate migration in dryland production is of concern in the low rainfall zones.
- Crop water use charts were published weekly in 2 newspapers during the 2005 growing season.
- The FCD provided technical assistance and \$28,000 in financial assistance to implement irrigation water management (IWM) on 7,000 acres.

Columbia Basin Ground Water Management Area (GWMA)

- Technical assistance was provided for the GWMA's IWM and deep soil sampling programs. \$75,136 in financial assistance was provided to 50 growers to implement IWM on 17,618 acres at an average cost of \$4.26 per acre.
- Four growers participated in the deep soil sampling program with 24 fields sampled to a depth of 10 feet and 238 samples analyzed. FCD served as Project Manager for the DSS project for GWMA.
- Phase Two of a three-dimensional model of the sub-surface geology was finished for the GWMA Geologic Framework Project. This phase involved mapping the sediment units in the GWMA geographic area. These sediment layers commonly host shallow aquifers which are more vulnerable to contamination. This model will assist in the mapping and identification of the area's aquifers and is invaluable for water quality and water quantity planning and implementation activities.
- The FCD provided staff for the Water on Wheels (WOW) program. The program was delivered to 310 classes including 350 adults, and 7,500 students. WOW provides lively hands-on demonstrations, educational computer games, and even field trips to educate students about watersheds, soils, groundwater, and conservation.
- The FCD assumed a lead role in developing research materials to convince Bonneville Power Administration to grant GWMA \$275,000 for IWM to be expended in 2005.
- The baseline well water sampling program began in 1998 with the sampling of nearly 600 privately owned wells in the GWMA area, for nitrate concentrations. The sampling occurs every two years to evaluate nitrate trends and the benefits GWMA's programs have on ground water quality. The Franklin Conservation District is the project manager for this program and sampled 188 wells in the fall of 2004.

Livestock Program

A major change in the Dairy Program took place on April 1, 2004. Monies previously used only for dairy planning could now be used for all animal waste management programs hence the creation of the new Livestock Program.

- The District wrote a Nutrient Management Plan for a squab farm and a Comprehensive Nutrient Management Plan for a Dairy.
- Two additional dairies were certified that had previously received extensions from the Commission.
- Financial Assistance totaling \$9,000 was provided for the installation of a waste transfer system.
- District staff assisted livestock producers with irrigation water management, nutrient management and record keeping.

Water Quality Education

- The web site at <u>www.franklincd.org</u> was maintained and updated with current information on District projects.
- 9 schools participated in the Salmon in the Classroom Program in 2005 with approximately 800 students joining in on the fun.
- 51 classes (1200 students) were taught using GIS to understand local watersheds, and to visualize water quality problems.
- The Franklin Conservation District in association with the Benton Conservation District sponsored the Kamiakin High School Envirothon Team. At the Regional Envirothon Competition, Team Kamiakin not only won the Franklin/Benton County award, but this rookie team also won the Regional competition as well. Team Kamiakin went on to compete at the State Envirothon and placed 7th out of 21 teams.

Ground Water Monitoring

 Samples from 159 wells were collected and analyzed for nitrate-nitrogen. This is part of the District's long term study of nitrate trends and temporal variations.

Franklin County Water Conservancy Board

• Staff support continues to be provided to the Franklin County Water Conservancy Board to facilitate water right transfers and changes.

Air Quality

 The Franklin Conservation District issues agricultural burn permits for Franklin County. Technical assistance is provided to help growers comply with the burn permit requirements and to reduce smoke emissions.

Remote Sensing

- Using satellite imagery and the District's GIS, crops were identified for every field in Franklin County.
 The crop information is then used to develop a ground water nitrate leaching index which helps focus limited financial and technical assistance funds.
- Satellite images were used to create county and regional maps that have been well accepted by growers and the public.

Perennial Wheat

 The effectiveness of perennial wheat as an erosion buffer in reducing sediments and sediment related nutrients from entering surface runoff is being evaluated. Two sites in Franklin County and one in Whitman County were planted with perennial wheat. This is a joint project between the FCD and WSU.

Washington Conservation Districts assisting land managers with their conservation choices